

50-75GHz Broadband Power Amplifier

2023-1-1

Gain=16dB, Psat=+32dBm



Product Overview

AT-PA-5075-1632GN is GaN Based high power amplifier with +32dBm output power in the frequency of 50-75GHz. The DC power requirement is +17V/1.5A. The module is with standard WR-15 waveguide. Other Connector can be available according to request.

The power amplifier has high gain, high linearity, low input/output return loss and flat gain response.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 50-75GHz
- ✓ Psat: +32dBm
- ✓ Small signal gain: 16dB
- ✓ Single Power Supply

Application

- ✓ V Band Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

Parameter	Min	Typical	Max
Frequency		50-75GHz	
Gain	14dB	16dB	
Drain Supply		+17V	+18V
P1dB		+25dBm	
Psat(Pin=+22dBm)	+30dBm	+32dBm	
Quiescent Current		1.1A	
IDD at Psat		1.5A	1.8A
Input Return Loss		-10dB	
Output Return Loss		-10dB	
Spec Temp		25C	





AT-PA-5075-1632GN

Full V Band High Power Amplifier

Mechanical Information

Item	Description
Input Port	WR-15
Output Port	WR-15
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	150g
Size:	See outline

Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+20V
RF Input Power	+25dBm
Operating Temperature	0 to +50C
Storage Temperature	-45 to +85C

Caution:

Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required or the amplifier may be damaged.

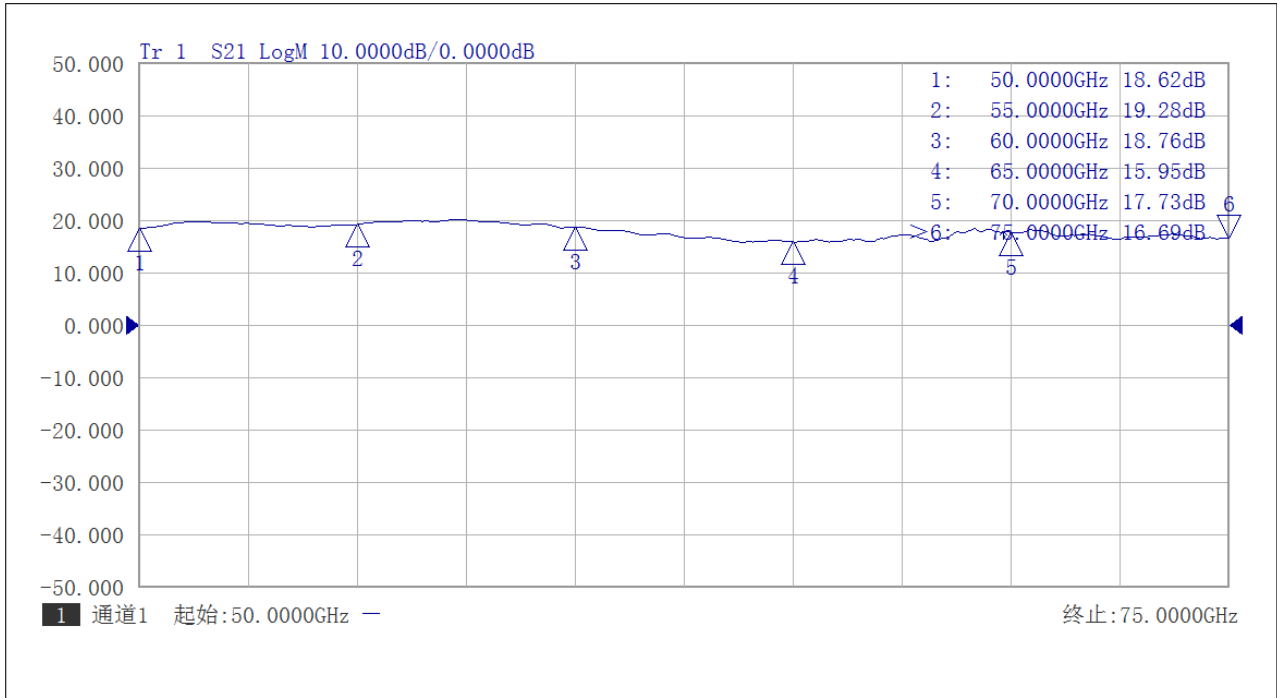
Notes:

1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.

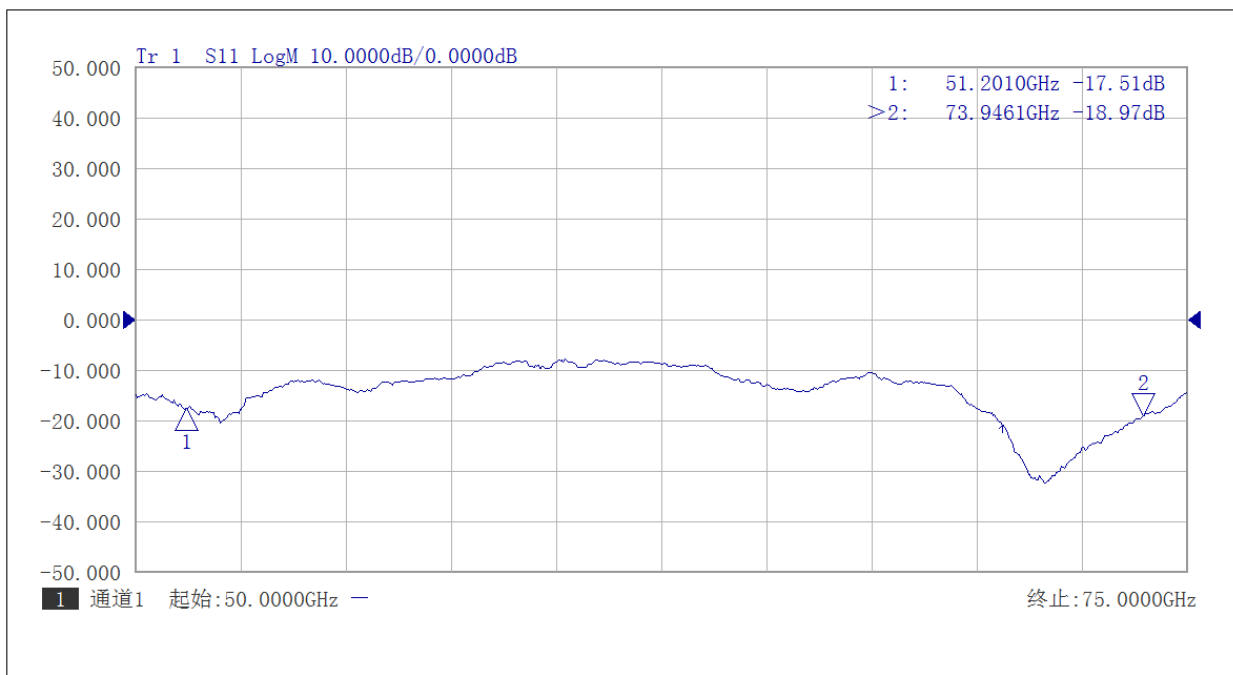


Test Data (25C)

Please note that test curves will vary slightly from unit to unit.

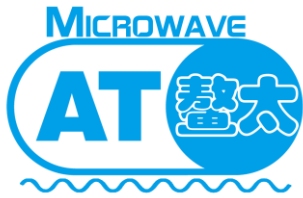


Gain vs Frequency



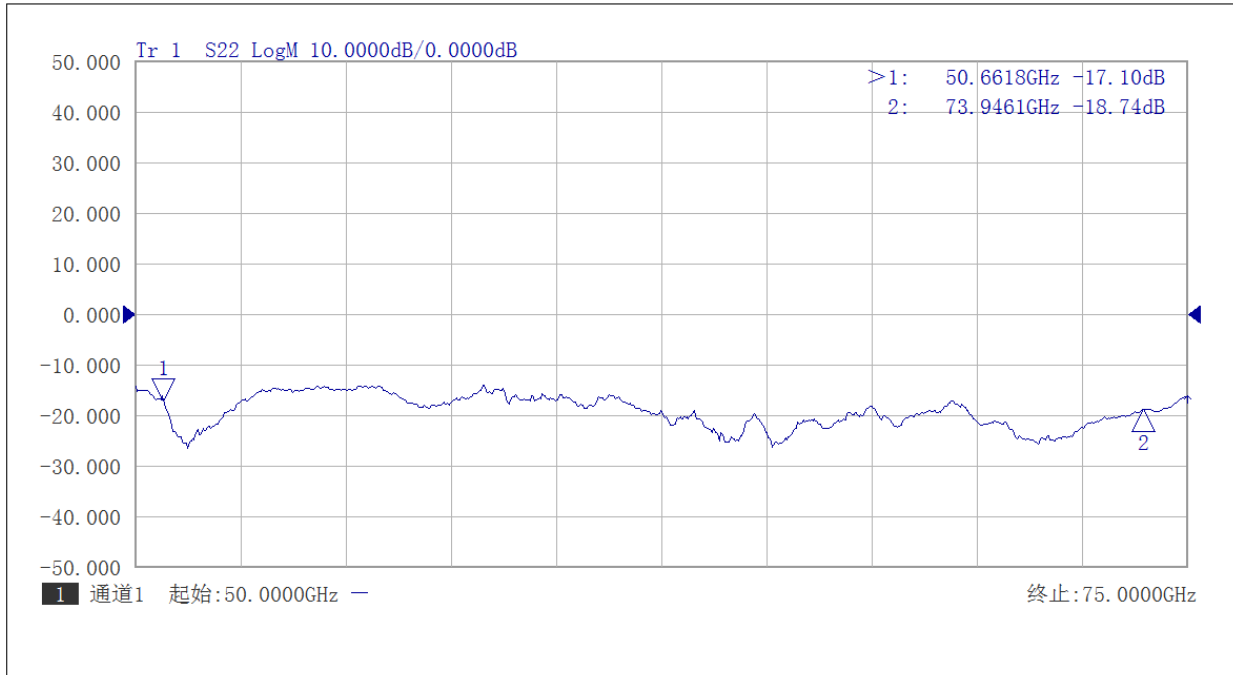
Input Return Loss vs Frequency



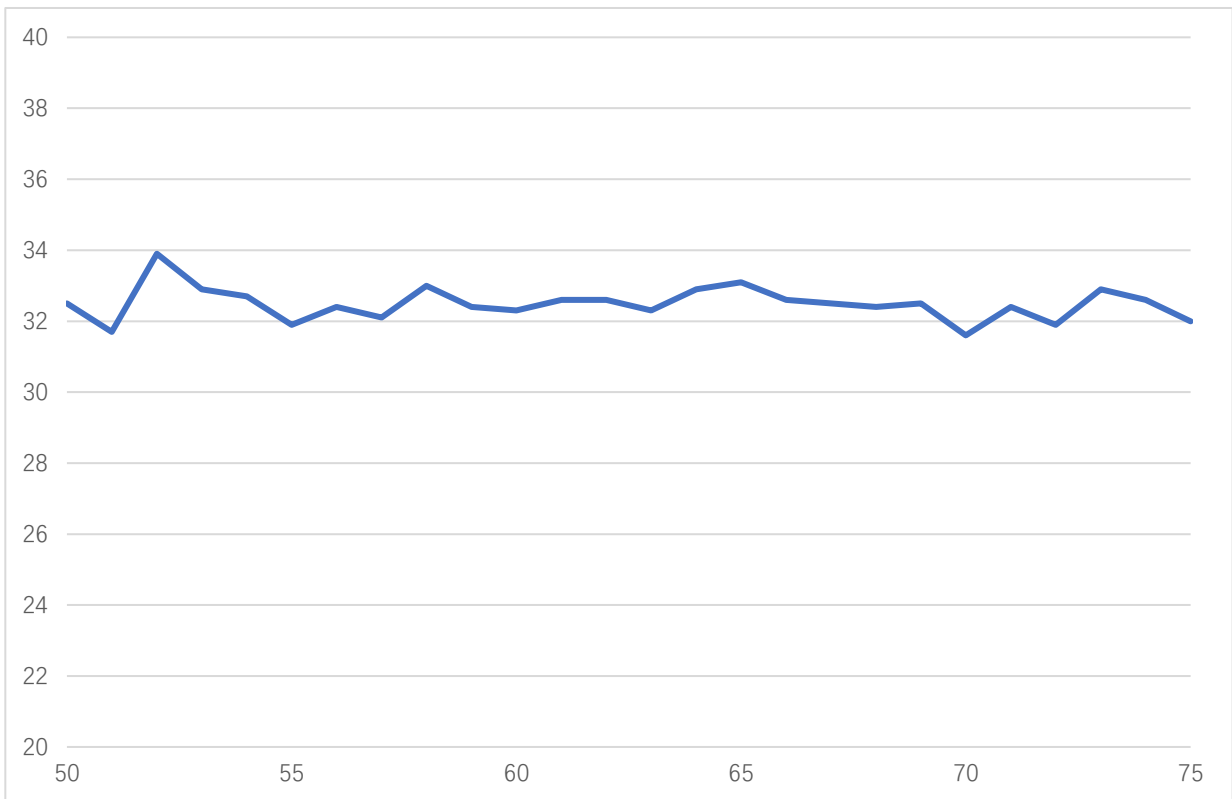


AT-PA-5075-1632GN

Full V Band High Power Amplifier

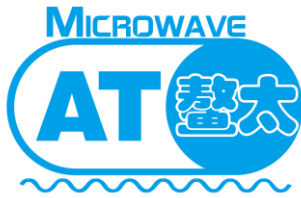


Output Return Loss vs Frequency



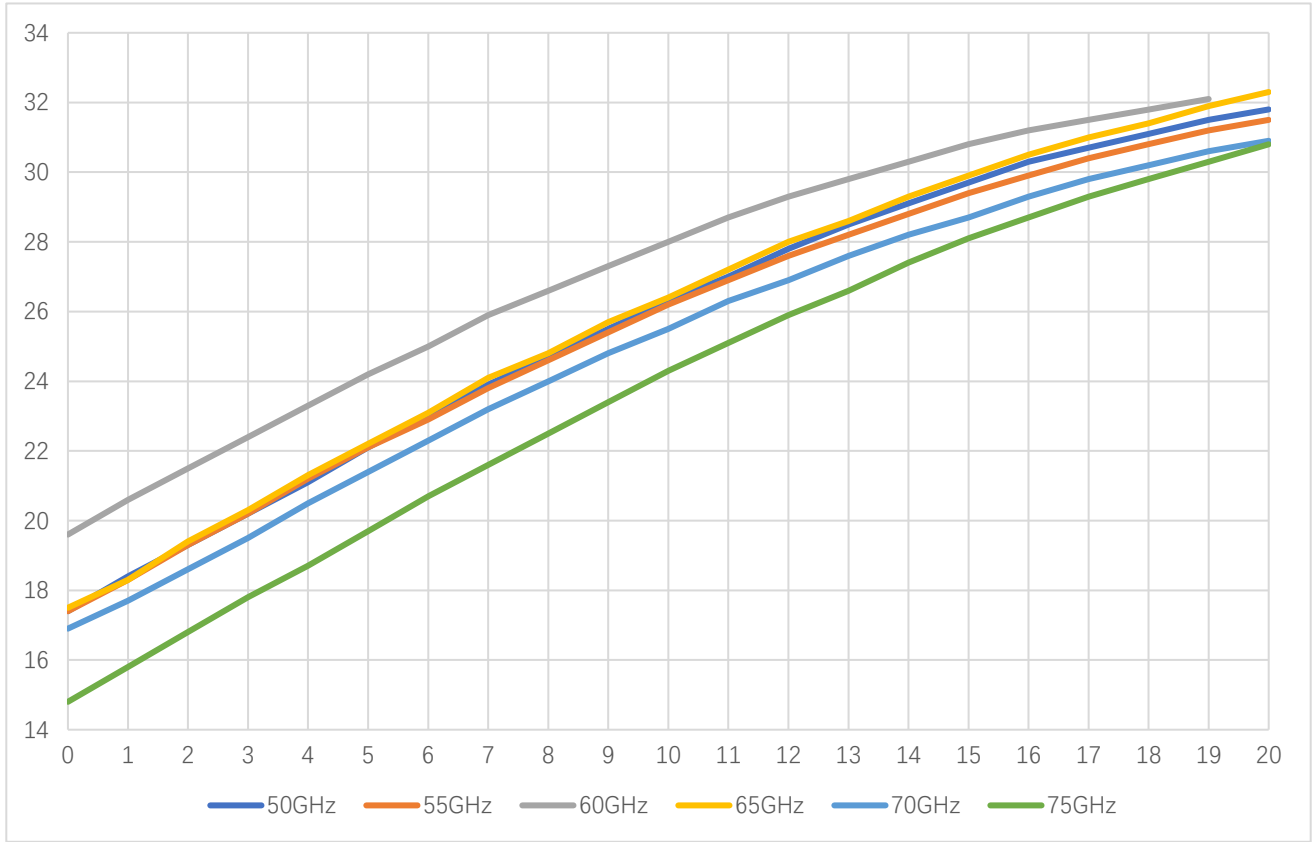
Psat vs Frequency





AT-PA-5075-1632GN

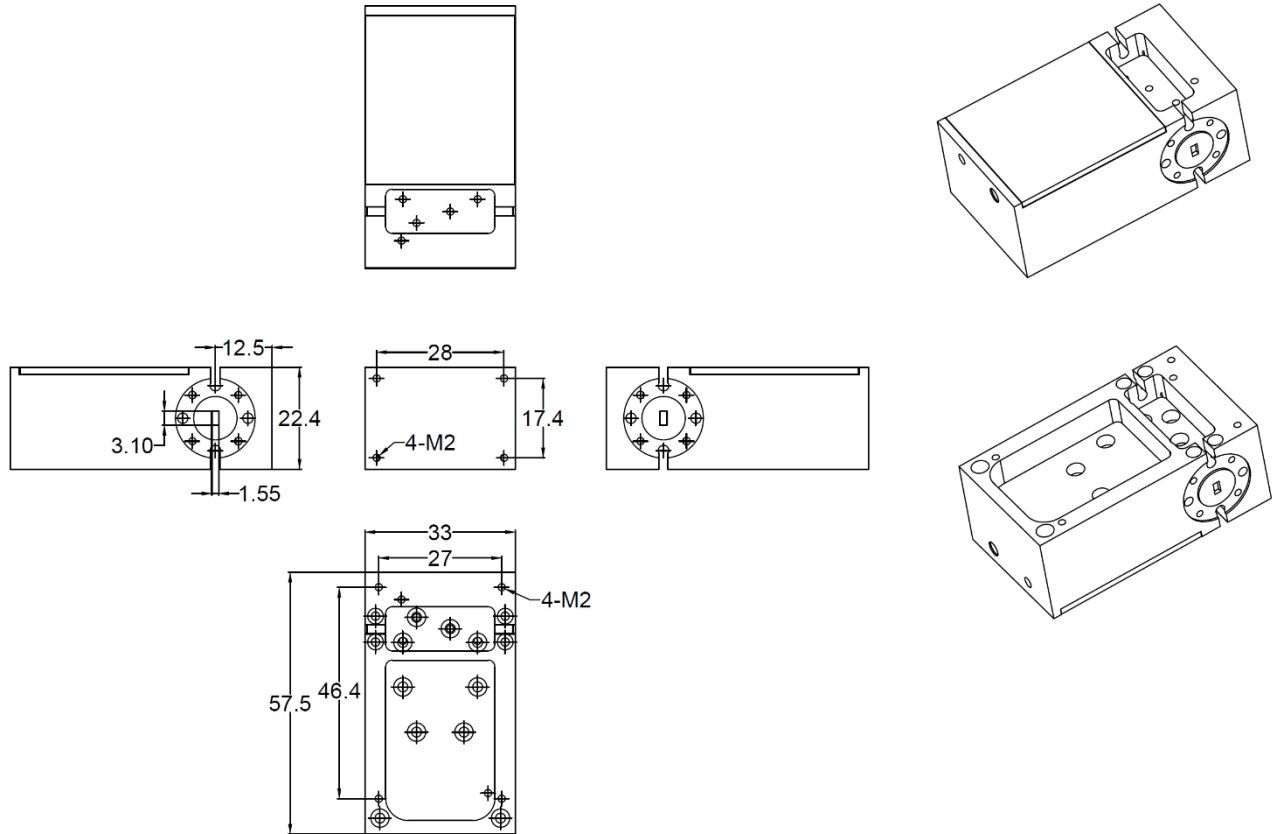
Full V Band High Power Amplifier



Pout vs Pin



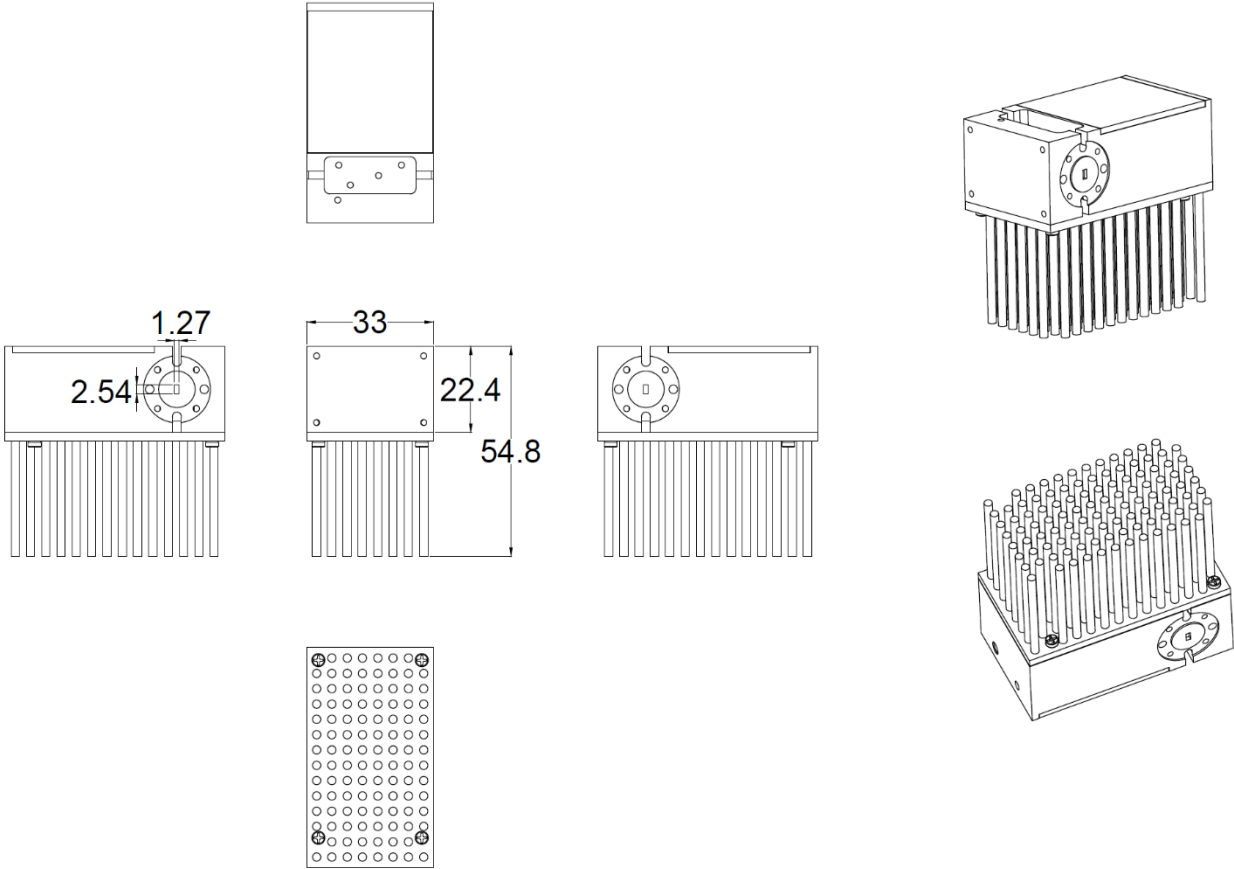
Dimension:(unit in mm)



Heatsink required during operation



Dimension with heatsink:(unit in mm)



Dimension with Heatsink

AT Microwave provides a heatsink in default.

Customer can remove the heatsink easily and use their own heatsink if need.

